

ADDENDUM TO STATEMENT OF BASIS
June 20, 1997
North Lily: Silver City Heap Leach Closure Permit
Permit Renewal

Ground Water Quality Discharge Permit No. UGW230001

Basis For Closure

The Silver City Heap Leach facility consists of 15 acres of spent ore stacked to an average depth of 100 feet. Active leaching of the ore was terminated in ??, 1995. North Lily has rinsed the ore by exposure to precipitation and by recycling drain down solutions to the heap leach. Significant reductions in initial contaminant concentrations of cyanide and other metals have been achieved. In spite of this rinsing effort several contaminants still exceed ground water quality standards. The long term drain down solution will be treated utilizing a passive aerobic bioreactor. The effluent from this system will be discharged to a lined evaporation pond.

The permittee has demonstrated that the expected quantity and quality of the discharge will not impact ground water due to the small volume of yearly discharge, the in place liner system, the depth to ground water at the site and the intervening stratigraphy between the surface and ground water.

Discharge Minimization Technology

Since North Lily was a existing facility at the time that the ground water regulations came into effect they are required to meet the Discharge Minimization Technology requirement of the ground water regulation as opposed to the more stringent Best Available Technology requirement. Discharge Minimization Technology for purposes of the permit is defined as: 1) An vegetative earthen cover that meets the requirements for land reclamation defined by the Division of Oil Gas and Mining; 2) An effective and maintained passive aerobic bioreactor constructed in the former pregnant solution pond and discharge to the former barren solution pond for evaporation. 3) Composite liner systems within the ponds will remain in place with care taken not to rip the liners during construction of biopass system and evaporation pond. 4) The leakage rate from the former barren and pregnant ponds will remain at 200 gallons per acre per day.

Discontinuance of Ground Water Monitoring

North Lily was a existing facility at the time that the ground water regulations came into effect. Rather than have North Lily install an expensive ground water monitoring system it was determined that monitoring of the Silver City supply well would provide a level of protection to the potentially impacted population. Monitoring of this well to date has shown no evidence of degradation due to the North Lily heap leach facility. Because no evidence exists that ground water was impacted during operations and due to the insignificant quantity of expected annual discharge ground water monitoring requirements will be discontinued under this permit. Discharge Minimization Technology performance monitoring will continue under the conditions of this permit.

Permit No.: UGW230001

**STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
P.O. BOX - 16690
SALT LAKE CITY, UTAH 84116-0690**

Ground Water Quality Discharge Permit

In compliance with the provisions of the Utah Water Pollution Control Act, Title 19, Chapter 5, Utah Code Annotated 1953, as amended,

**North Lily Mining Company
Silver City Heap Leach
1800 Glenarm Place, Suite 210
Denver, Colorado 80202**

is granted a Ground Water Quality Discharge Permit for the Silver City Heap Leach located at latitude ° ' " North, longitude ° ' " West in accordance with conditions set forth herein.

This Ground Water Quality Discharge Permit supersedes all other Ground Water Discharge permits for this facility issued previously.

This permit shall become effective on July 30, 1997.

This permit and the authorization to operate shall expire at midnight, July 30, 2002.

Signed this _____th day of July, 1997.

Executive Secretary
Water Quality Board

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1) Maintenance of the current liner systems in the barren and pregnant ponds; 2) The pond level in either pond shall not exceed a free board of two feet from the top of the lined pond; 3) Leakage rates shall not exceed 200 gallons per acre per day.

C. Compliance Monitoring Requirements

1. Heap Leach and Biopass System Effluent Monitoring

- a) Monitoring Frequency - The permittee shall attain independent grab samples from the heap leach and biopass system sampling ports on a semi-annual basis. Semi-annual monitoring will be conducted during the first and third quarters during odd numbered years and during the second and fourth quarters during even numbered years. Monitoring will be reported to the Executive Secretary as per the requirements stipulated in Part I.E.1.
- b) Analysis by Certified Laboratories - heap leach and biopass water samples shall be submitted to a laboratory certified by the State Health Laboratory for analysis.
- c) Analytical Methods - methods used to analyze samples must be methods cited in UAC R317-6-6.3A(13)
- d) Analysis Parameters - the following analyses will be conducted on all water samples collected:
 - 1) Field Parameters - pH, temperature, and specific conductance
 - 2) Laboratory Parameters - including:
 - Major Anions and Cations: including chloride, sulfate, carbonate, bicarbonate, sodium, potassium, magnesium and calcium.
 - Dissolved Metals: including arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc.
 - Fluoride, nitrite and nitrate.
 - Weak Acid Dissociable Cyanide.
 - Cyanide Amenable to Chlorination.

permittee will then implement the Contingency Plan according to the schedule approved by the Executive Secretary.

E. Reporting Requirements

1. Discharge Minimization Monitoring Report:

- a) Schedule - The sampling and analysis required in Part I.C, above, shall be reported according to Table 1, below.

Table 1 - Compliance Monitoring Reporting Schedule

<u>Quarter</u>	<u>Report Due On</u>
1st (Jan., Feb., March)	April 15
2nd (April, May, June)	July 15
3rd (July, Aug., Sept.)	October 15
4th (Oct., Nov., Dec.)	January 15

b). Sampling and Analysis Report - will include:

- 1) Field Data Sheets - or copies thereof, including the field measurements, required in Part I C 1(c)(1), above, and other pertinent field data, such as: sample location, date and time, names of sampling crew, type of sampling pump or bail, measured casing volume, volume of water purged before sampling.
- 2) Results of Sample Analysis - including date sampled, date received, ion balance; and the results of analysis for each parameter, including: value or concentration, units of measurement, reporting limit (minimum detection limit for the examination), analytical method, and the date of the analysis.
- 3) Electronic Filing Requirements - In addition to submittal of the hard copy data, above, the permittee will be required to electronically submit the required ground water monitoring data in an electronic format approved by the Executive Secretary. The data may be sent by e-mail, floppy disc, modem or other approved transmittal mechanism.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under Part I shall be representative of the monitored activity.
- B. Analytical Procedures. Water sample analysis must be conducted according to test procedures specified under UAC R317-6.3.A.13, unless other test procedures have been specified in this permit.
- C. Penalties for Tampering. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Reporting of Monitoring Results. Monitoring results obtained during each reporting period specified in the permit, shall be submitted to the Executive Secretary, Utah Division of Water Quality at the following address no later than the 15th day of the month following the completed reporting period:
- State of Utah
Division of Water Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4810
Attention: Ground Water Protection Section
- E. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- F. Additional Monitoring by the Permittee. If the permittee monitors any pollutant more frequently than required by this permit, using approved test procedures as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted. Such increased frequency shall also be indicated.
- G. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) and time(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and,

K. Inspection and Entry. The permittee shall allow the Executive Secretary, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

- b. "Severe property damage" means substantial physical damage to property, damage to treatment facilities which may cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
2. Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least five (5) days before the date of the bypass. The notice shall include the reason(s) for the anticipated bypass, the expected length of time treatment systems will be bypassed, and a description of the measures taken to mitigate the quantities released during the bypass. Operational records shall be submitted following the anticipated bypass detailing the quantities of materials released and the levels of relevant chemical constituents in the materials released. The permittee shall limit the time period of the bypass to the minimum amount of time necessary to affect system maintenance or repairs.
- The Executive Secretary may approve an anticipated bypass, after considering any potential effects, if the Executive Secretary determines that it will meet the three conditions listed in paragraph 5 below of this section.
3. Unanticipated Bypass - The permittee shall submit notice of an unanticipated bypass as required in Part I.D.1. The permittee shall limit the time period of the bypass to the minimum amount of time necessary to affect system maintenance or repairs.
4. Prohibition of Bypass - Bypass is prohibited and the Executive Secretary may take enforcement action against a permittee for a bypass, unless:
- a) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,
 - c) The permittee submitted notices as required under Part III F.3,

IV. GENERAL REQUIREMENTS

- A. Planned Changes. The permittee shall give notice to the Executive Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when the alteration or addition could significantly change the nature of the facility or increase the quantity of pollutants discharged.
- B. Anticipated Noncompliance. The permittee shall give advance notice of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. Spill Reporting - The Permittee shall immediately report as per UCA 19-5-114 of the Utah Water Quality Act any spill or leakage from the tailings impoundment or associated facilities which is not totally contained by a collection system. This report shall be made to the phone numbers given in Part II I 1. A written report will be required within 5 days of the occurrence and should address the requirements of UCA 19-5-114 and Part II I 2 and 3 of this permit.
- D. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- E. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a permit renewal or extension. The application should be submitted at least 180 days before the expiration date of this permit.
- F. Duty to Provide Information. The permittee shall furnish to the Executive Secretary, within a reasonable time, any information which the Executive Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Executive Secretary, upon request, copies of records required to be kept by this permit.
- G. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Executive Secretary, it shall promptly submit such facts or information.

or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- I. Penalties for Falsification of Reports. The Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- J. Availability of Reports. Except for data determined to be confidential by the permittee, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Executive Secretary. As required by the Act, permit applications, permits, effluent data, and ground water quality data shall not be considered confidential.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
 - 1. The current permittee notifies the Executive Secretary at least 30 days in advance of the proposed transfer date;
 - 2. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
 - 3. The Executive Secretary does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement as described in Part